

**WHAT IS CLAIMED IS:**

- 1           1.     A method of maintaining printed circuit board manufacturing equipment  
2     comprising contacting a component of the equipment with a composition including an  
3     oxidant.
- 1           2.     The method of claim 1, wherein the composition is an aqueous solution.
- 1           3.     The method of claim 1, wherein the oxidant includes a peroxide.
- 1           4.     The method of claim 1, wherein the composition further comprises a pH  
2     modifier.
- 1           5.     The method of claim 4, wherein the pH modifier includes a carbonate salt.
- 1           6.     The method of claim 4, wherein the pH modifier is an acid.
- 1           7.     The method of claim 4, wherein the pH modifier is a base.
- 1           8.     The method of claim 4, wherein the pH modifier includes sodium carbonate.
- 1           9.     The method of claim 4, wherein the pH modifier includes acetic acid.
- 1           10.    The method of claim 1, wherein the component includes a residue.
- 1           11.    The method of claim 10, wherein the residue includes a resist, a soldermask,  
2     an antifoam agent, or a hard water deposit.
- 1           12.    The method of claim 10, further comprising oxidizing the residue.
- 1           13.    The method of claim 10, further comprising dispersing the residue.
- 1           14.    The method of claim 10, further comprising dissolving the residue.
- 1           15.    The method of claim 1, wherein the component includes a nozzle.
- 1           16.    The method of claim 15, further comprising passing the composition through  
2     the nozzle.

- 1           17.    The method of claim 15, wherein the component includes a second nozzle.
- 1           18.    The method of claim 17, further comprising passing the solution through the  
2 first nozzle and the second nozzle simultaneously.
- 1           19.    The method of claim 1, wherein contacting includes maintaining the  
2 composition at a temperature greater than 80 °F.
- 1           20.    The method of claim 1, wherein the oxidant includes hydrogen peroxide.
- 1           21.    The method of claim 1, wherein the oxidant includes sodium perborate.
- 1           22.    The method of claim 1, wherein the oxidant includes an organic peroxide, a  
2 peracid, or a hydroperoxide.
- 1           23.    The method of claim 1, wherein the solution includes a surfactant that is not  
2 oxidized by the oxidant.
- 1           24.    The method of claim 1, further comprising removing a waste material from  
2 the equipment, the waste material including water, an oxidant, and an oxidized resist.
- 1           25.    A method of cleaning printed circuit board manufacturing equipment  
2 comprising contacting a component of the equipment including a residue with an aqueous  
3 composition including an oxidant to oxidize the residue.
- 1           26.    The method of claim 25, wherein the residue includes a resist, a soldermask,  
2 an antifoam agent, or a hard water deposit.
- 1           27.    The method of claim 25, further comprising dispersing the residue.
- 1           28.    The method of claim 25, further comprising dissolving the residue.
- 1           29.    The method of claim 25, wherein the component includes a nozzle.
- 1           30.    The method of claim 25, wherein the oxidant includes hydrogen peroxide.

- 1           31.    The method of claim 25, wherein the aqueous composition includes sodium  
2   carbonate.
- 1           32.    The method of claim 25, wherein the aqueous composition includes acetic  
2   acid.
- 1           33.    The method of claim 25, wherein the oxidant includes an organic peroxide, a  
2   peracid, or a hydroperoxide.
- 1           34.    The method of claim 25, further comprising removing a waste material from  
2   the equipment, the waste material including water, an oxidant, and an oxidized resist.
- 1           35.    A method of manufacturing a printed circuit comprising contacting a board  
2   including a resist with a composition comprising an oxidant.
- 1           36.    The method of claim 35, further comprising oxidizing the resist.
- 1           37.    The method of claim 35, wherein the resist is overplated.
- 1           38.    The method of claim 35, wherein contacting the board with the composition  
2   includes spraying the composition on the board.
- 1           39.    The method of claim 35, wherein contacting the board with the composition  
2   includes immersing the board in the composition.
- 1           40.    The method of claim 35, wherein the composition includes a pH modifier.
- 1           41.    The method of claim 40, wherein the pH modifier is an acid.
- 1           42.    The method of claim 40, wherein the pH modifier is a base.
- 1           43.    The method of claim 40, wherein the pH modifier includes sodium carbonate.
- 1           44.    The method of claim 40, wherein the pH modifier includes sodium carbonate  
2   and the oxidant include hydrogen peroxide.

1           45.     The method of claim 35, further comprising maintaining the composition at a  
2     temperature greater than 80 °F.

1           46.     The method of claim 35, wherein the oxidant includes hydrogen peroxide.

1           47.     The method of claim 35, wherein the oxidant includes sodium perborate.

1           48.     The method of claim 35, wherein the oxidant includes an organic peroxide, a  
2     peracid, or a hydroperoxide.

1           49.     The method of claim 35, further comprising removing a waste material from  
2     the equipment, the waste material including water, an oxidant, and an oxidized resist.

1           50.     A composition for treating a printed circuit board resist comprising an  
2     aqueous solution of an oxidant.

1           51.     The composition of claim 50, further comprising a pH modifier.

1           52.     The composition of claim 51, wherein the pH modifier is a carbonate salt.

1           53.     The composition of claim 52, wherein the concentration of the carbonate salt  
2     is between 20 grams per liter and 200 grams per liter.

1           54.     The composition of claim 50, wherein the oxidant includes an organic  
2     peroxide, a peracid, or a hydroperoxide.

1           55.     The composition of claim 50, further comprising a surfactant that is not  
2     oxidized by the oxidant.

1           56.     The composition of claim 50, wherein the oxidant is hydrogen peroxide.

1           57.     The composition of claim 56, wherein the concentration of hydrogen peroxide  
2     is between 2.0% and 10% by volume.

1           58.     The composition of claim 56, further comprising a pH modifier.

1           59.     The composition of claim 58, wherein the pH modifier is a carbonate salt

1           60.     The composition of claim 59, wherein the concentration of hydrogen peroxide  
2     is between 2.0% and 10% by volume and the concentration of the carbonate salt is between  
3     20 grams per liter and 200 grams per liter.

1           61.     The composition of claim 59, wherein the concentration of hydrogen peroxide  
2     is between 3% and 6% by volume and the concentration of sodium carbonate is between 40  
3     grams per liter and 100 grams per liter.

1           62.     A composition for treating a printed circuit board resist comprising an  
2     aqueous solution of hydrogen peroxide and acetic acid.

1           63.     The composition of claim 62, wherein the concentration of hydrogen peroxide  
2     is between 2.0% and 10% by volume.

1           64.     The composition of claim 62, wherein the concentration of acetic acid is  
2     between 1% and 10% by volume.

1           65.     The composition of claim 62, wherein the concentration of hydrogen peroxide  
2     is between 2.0% and 10% by volume and the concentration of acetic acid is between 1% and  
3     10% by volume.

1           66.     The composition of claim 62, wherein the concentration of hydrogen peroxide  
2     is between 3% and 6% by volume and the concentration of acetic acid is between 3% and 6%  
3     by volume.

1           67.     A composition for treating a printed circuit board resist consisting essentially  
2     of an aqueous solution of an oxidant and a pH modifier.

1           68.     A composition for treating a printed circuit board resist consisting essentially  
2     of an aqueous solution of hydrogen peroxide and a carbonate salt.